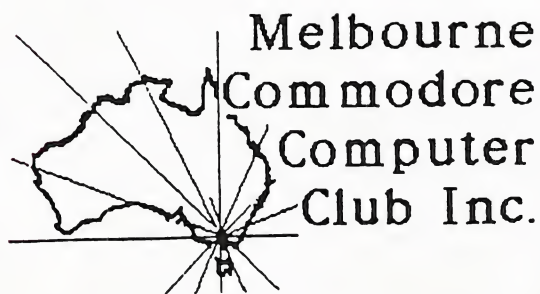
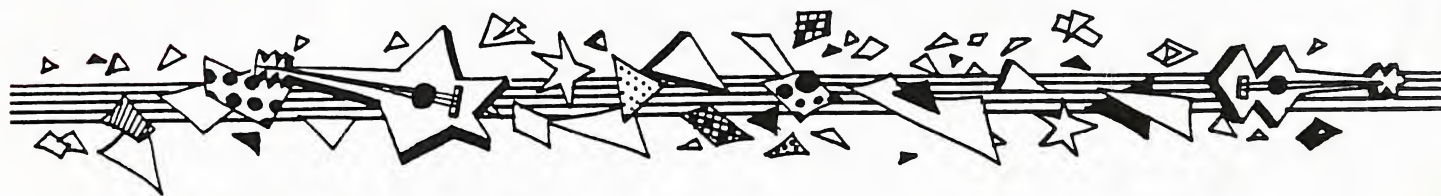
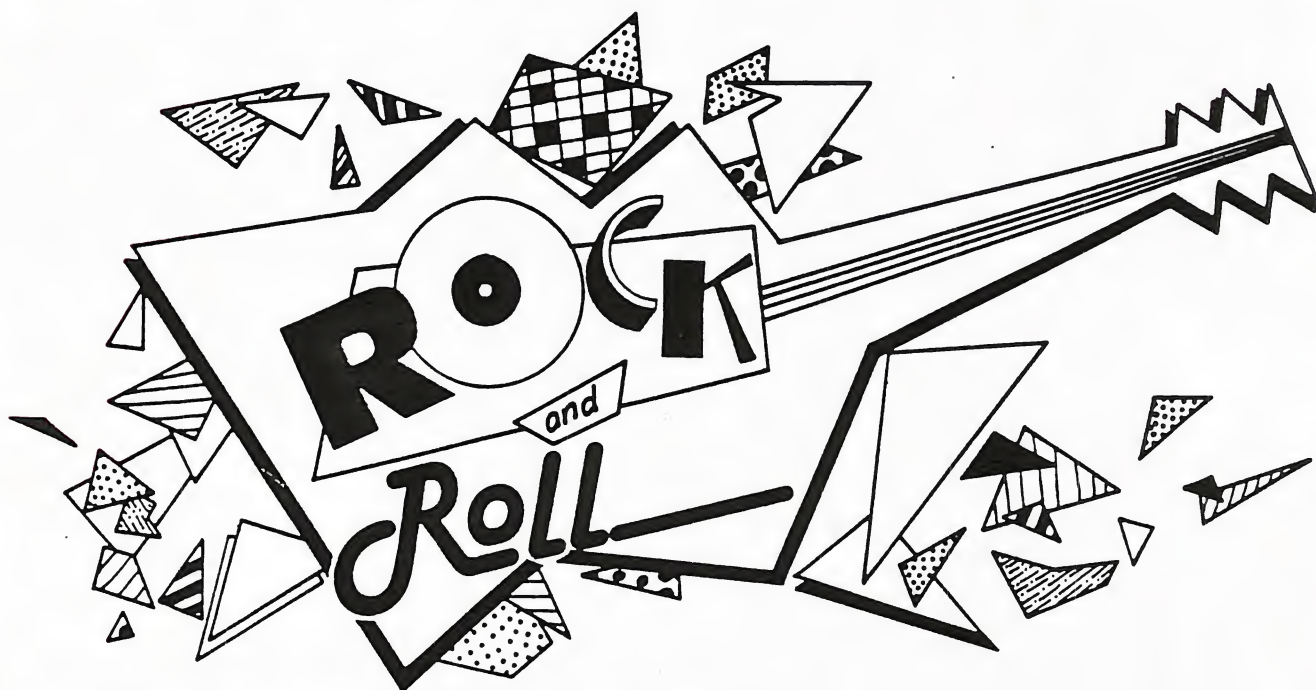


P.O. BOX 177, BOX HILL, 3128.

\$2.00

# MCCC NEWS

THE MONTHLY NEWSLETTER FROM THE FAMILY COMPUTER CLUB



**JULY 1994**

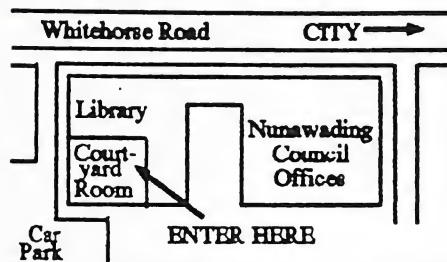
VIC 20 C16 PLUS 4 C64 C128 AMIGA



# Melbourne Commodore Computer Club Inc.

Postal Address:  
P.O. Box 177,  
Box Hill, Vic. 3128.

Club meetings are held on the  
second Wednesday of each  
month at the Nunawading Civic  
Centre in the Courtyard Room.



Meetings begin at 7.30 p.m.  
Please make an effort to arrive  
on time so the meeting can  
begin with no delays.

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All opinions expressed are those  
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Telephone (03) 725-0682

Articles for the newsletter may  
be hardcopy (handwritten is  
equally acceptable), C64 or  
Amiga disk. All club members  
are invited to submit articles.

Secretary:

Robert Morrow

23 Gidgee Avenue,

Lower Templestowe, Vic. 3107.

DEADLINE FOR NEXT ISSUE  
29th July, 1994.

## In this Issue.....

Page 3	The Editor's Bytes
Page 3	Pedlar's Corner
Page 3	C64/128 Commodore Voice
Page 4	Software Spotlight - C64 July Club Disk
Page 4	Amiga P.D. Library
Page 5	A Chat with the President
Page 6	Error Messages and What they Mean
Page 9	Commodore Network
Page 9	From the Club Shop
Page 10	Profile - Dorothy Millard
Page 11	Computers & Telecommunications - A look into the World of Modems
Page 12	Virus Alert
Page 13	Dealer Directory

### MEMBERSHIP FEES - Visitors Welcome

\$35 per year Family Membership

\$3 VISITOR (family - includes FREE Newsletter)

### BENEFITS OF MEMBERSHIP

- \* Monthly newsletter mailed to all members.
- \* Pedlar's trading table selling recycled computer wares and blank 3 1/2" and 5 1/4" disks at competitive prices.
- \* Magazine Library - Magazines are available for members to borrow.
- \* Access to the club's extensive C64 & Amiga PD libraries - club disks available at meetings for only \$2 each.
- \* Help is available to assist in solving problems.
- \* Computers for members' use.
- \* Monthly demonstrations

### JULY DEMONSTRATIONS

C64

Amiga Corner

C64 Corner

### COMMITTEE FOR 1994/95 CLUB YEAR

PRESIDENT .....	Bernie O'Shea
SECRETARY .....	Bob Morrow
SECRETARY'S ASSISTANT .....	Jim Davies
TREASURER .....	George Flanagan
EDITOR .....	Dorothy Millard
C64/128 LIBRARIAN .....	Shirley Young
AMIGA LIBRARIANS .....	Brett Eden & Darryl Hunter
PEDLAR/DISK SALES .....	
MAGAZINE LIBRARIAN .....	Grant Davies
PUBLICITY .....	Brett Eden
COMMITTEE MEMBER .....	Rob Jackson
COMMITTEE MEMBER .....	Leoni Parsons



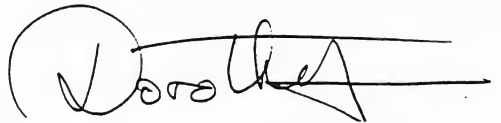
The cover picture for the July Newsletter has been taken from my graphics file and blown up on a photocopier to make it fit. It is something a little different from the monsters we have been having lately.

Contained in this month's newsletter is a very interesting article for C64 users on error messages and what they mean. I'm sure we have all seen a number of these while programming or operating our computers. I know I have certainly seen my fair share. The article on Computers and Telecommunications by Brett gives a rundown of what modems are all about. Virus Alert is interesting for everyone who has ever wondered what all the fuss about viruses was about and what can be done to prevent them wrecking your system. And if none of these appeal to you there is always my profile to read!

I know Bernie is going to write about the trip to Cockatoo by a number of our group for a session on modems, in his President's Report, but I feel I would like to comment that it was an excellent day and very interesting. If you missed it you missed not only a great learning experience but a social occasion too. My thanks, along I am sure with that of other members who attended, goes to Ivan Blitz for allowing us into his home and to other members of the Hills/Talisman Group, who made us welcome and offered to share their knowledge with us.

Don't forget, Commodore Network magazines are now available through the club and if you missed last month's it is still not too late to pick up a copy.

Until next time.....



## \$\$\$\$\$\$ PEDLAR'S CORNER \$\$\$\$\$\$

Make yourself some money and sell your superseded computer wares at Pedlar's Corner. Bring goods to be sold along around 7.00 p.m. and pick up anything left around 9.15 p.m.

Please complete a form detailing the goods to be sold and price. Forms are available from Pedlar and are printed periodically in the newsletter. Please also ensure that goods are labelled with your name and the price required. Note a commission of 10% is payable to the club.



## C64/128 Commodore Voice

The Mail Meeting Place  
for all Commodore computer Users World-Wide

Do you own a C64/128 computer? Would you like to meet others from all over the world?

If so, contact Commodore Voice

11 Dunsford Street, Whyalla Stuart, South Australia, 5608.



# Software Spotlight

## JULY C64 CLUB DISK

### **Graphics Converter V2**

*This program was originally part of the Graphics Utility package and is an excellent program which converts KOALA, DOODLE and CGS (Cockroach Compressed Graphics used by the Graphics Utility) picture files to various graphic formats, e.g. OCP Art Studio, The Image System, Cadpak 64, GeoPaint, Flexidraw, Print Shop Screen Magic, Computer Eyes, Blazing Paddles, The Artist 64, Micro Illustrator, Super Sketch, Animation Studio and Advanced Art Studio.*

*Full instructions are on the disk in a sequential file, which can be read using the File Reader, also on the disk.*

### **Koala Loader**

*This can be used to display Koala Pictures without first loading the Koala program.*

### **Doodle Loader**

*This program allows you to view Doodle pictures without first loading the Doodle program.*

### **Koala Tester**

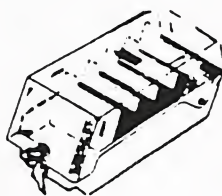
*A small program which tests to see if a picture is in the Koala format, even though the reversed spade is missing.*

### **Loop Koala**

*This can be used to create your own slide show of Koala pictures.*

### **Pictures**

*Also on the disk are many pictures in various graphic formats, including Doodle, Koala, Blazing Paddles, Orpheus CADPAK 64, Billboard Maker, Screen Magic, Micro Illustrator and Paint Magic. Just what you need to try out the conversion program above.*



**P.D. Library**



The club has access to CD's containing Fred Fish disks, Music Modules for Soundtracker, Workbench Utilities, Scope PD disks, JAM (Just Amiga) disks, 17-BIT and MUCH, MUCH more. Whatever you're looking for, talk to our Librarians, Brett Eden or Darryl Hunter, who will be happy to help you.



# A Chat with the President



The club's year continues to be interesting and educational, although my own computing activity has been sadly reduced lately. I think it has been a combination of the shorter daylight hours, the chopping and carting around of wood for our heater, the visit of a particularly nasty virus to our house, the regular calls from work when somebody else is sick and needs to be replaced (more often than not on the midnight to dawn shift!), and the feeling that I should spend some time on my other hobbies as well!

Lately I have been answering phone calls from people who have heard about us in the computer trading newspapers, and I hope some of them are reading this and will come along to talk with us at a monthly meeting soon. I know Dorothy also gets lots of calls from Commodore owners who need support, and I hope we can be of some help to them. I am also seeing the usefulness of mail groups, (like "Commodore Voice"), and the excellent local "Commodore Network" magazine, especially for the C64, where no other form of communication exists. At least the Amiga has a few magazines left in the newsagent! Even within Melbourne, travel distances are too great for people to attend our meetings, and this club is not intended to be a mail support group - we are just not set up that way. Our newsletter is designed as a link between MCCC members, not as an alternative to something like the "Network". But there lies the problem. Unless we attract members who ARE willing to actually join and share the costs, the club will not have the funds to provide the services we do. In other words, we have lots of users who want help, advice, and software, and not enough who are willing to contribute their own experience and funds to the running of the club. Please think about this and do what you can to encourage new membership. Let the committee know your ideas.

On 26th June, I was among the members who visited the home of member Ivan Blitz

in Cockatoo to learn about telecommunications, BBSs, modems and associated software from the operators of the Talisman bulletin board. About a dozen people - half MCCC and half HILLS group - we started with a barbeque next to Ivan's emu run (!) and then went inside to his extremely well organised computer room. With the help of the Talisman experts, he had on display quite a collection of RS232 interfaces, various modems and hardware bits and pieces. Not much use unless you have someone to explain it all, but these guys really know their stuff. The actual demonstration began with a C128 in 64 mode, so that we could see how a C64 performs in this role. The SYSOP of Talisman, Glenn Thompson, was present and had configured his board especially for us for the afternoon, with a special welcoming message, and time restrictions for all his regular users. I hope they forgave this inconvenience in the interests of educating us beginners.

We saw various modem speeds and both text and graphics presentations on the screen. Then we went to the C128 mode using the communications program Desterm, and did it all again. This time we looked at on-line games and found some entertainment worthy of the new casino. Perhaps getting dressed up and going into town is a waste of time! Next we looked at the workings of a world class off-line mail reader program written by an Australian programmer, and our Amiga librarian pronounced it better than anything he had seen for his machine.

Some of the technical discussion about modems was perhaps stretching the abilities of complete novices in this field, but I believe that every one of our members who attended enjoyed themselves and gained new knowledge about their computers. Many thanks to Ivan and his wife for the use of their house, and to our new friends from Talisman.

What will the next month bring? Till then, Bernie.



# *Programming*

## Error Messages and What they Mean

When the C64 comes across a problem, it puts a message onto the screen preceded by a question mark and followed by "READY" with the cursor blinking on the line below.

An alphabetical list of error messages is given below, complete with possible explanations and what you can do about it.

Where a line number is involved, that's given as [n]; it indicates at which line in your program the error was detected, but note that this doesn't necessarily mean the error itself is actually in that line, as it may have been caused by something else in the program.

Several of these messages are obscure and definitely unlikely, some refer only to disk usage, and others involve concepts and commands that are outside the scope of an introductory look like this. But they're all here just in case you encounter them.

### BAD DATA ERROR IN LINE [n]

The program was expecting numeric data and it got a character string. Correct the duff command(s), normally it's a READ or INPUT# statement followed by a numeric, rather than a string variable (one with a \$ sign on it).

### BAD SUBSCRIPT ERROR IN LINE [n]

You're trying to reference an element in an array that's outside the dimensions you set up with a DIM statement. You'll have to correct the DIM so that the array is larger, or change the array element number so that it's within the range.

### BREAK IN LINE [n]

This isn't exactly an error message, just an indication that the program has been stopped and what line it had reached. This is usually because you wanted it to stop (you inserted a STOP statement in it to see how it was doing so far, or you hit RUN/STOP to halt it), or

because you accidentally leant on the RUN/STOP key.

### CAN'T CONTINUE ERROR IN LINE [n]

You've used a CONTINUE command, but the program has been deleted or perhaps amended such that program execution cannot proceed. The most likely cause, however, is that the computer has previously picked up another error and you haven't corrected it - it won't let you CONTINUE until that has been fixed. Your best option is probably to try restarting with RUN and see if that throws up an uncorrected error.

### DEVICE NOT PRESENT

This message probably means that the device you're trying to access (usually a printer or disk drive, occasionally the cassette) isn't connected to the computer or the mains. That's easily remedied of course.

Sometimes though you'll get this message for no apparent reason when trying to read a file from disk. The solution is to switch off everything you can (usually the disk drive and printer) and try again. Alternatively OPEN a channel to the device you want to address and then re-attempt it.

This message can also occur if the devices are powered up in the wrong order, especially if using two single 1541 drives. Experiment to overcome the problem.

### DEVISION BY ZERO ERROR IN LINE [n]

The computer won't allow you to divide by zero. You might have tried to do that by mis-typing something, but it's more likely to occur within a FOR NEXT loop or as a result of filling an array with numbers that you then use in a division.

The easiest solution is to put a check for zero on any procedure that might just produce one in a division.



## Error Messages and What they Mean (Continued.....)

### EXTRA IGNORED

Someone typed too much in response to an INPUT prompt. You may also have inadvertently included a comma in your input. (The comma is used to separate fields and must not be used as an input character).

### FILE ALREADY EXISTS

The computer won't let you set up two files on disk with the same name, but it won't tell you that unless you're trying the COPY command, in which case you'll get this message. Give up and rename the file.

### FILE NOT FOUND

You're trying to LOAD or VERIFY a file that the computer can't see on the disk or tape. It's probably not there but you may have mis-typed the file name or mis-remembered what you called it.

### FILE NOT OPEN

You haven't used an OPEN command when the computer wants one from you - which is before a CMD, CLOSE, INPUT#. So OPEN a file and retry.

### FILE OPEN

You used an OPEN command on a file that's already open. Either you don't need to re-OPEN it, or you need a different logical file number in the OPEN command. If in doubt, CLOSE the file and OPEN it again.

### FORMULA TOO COMPLEX ERROR IN LINE [n]

You've asked the computer to do too much - you used an expression that has too many brackets or too many functions.

Split up the expression somehow. That's good policy anyway since it will make life easier for anyone (like you!) who has to read through and understand the program in future.

### ILLEGAL DIRECT

Most of the computer's commands can be used in immediate mode (i.e. they are executed as soon as you hit RETURN) or in programs (they are executed only when the program is RUN). But these are not valid in immediate mode:

DATA, DEFFN, GET, GET#, INPUT, INPUT#.

If you want to use these, you'll have to write a short program that incorporates what you want to do and RUN it.

### ILLEGAL QUANTITY ERROR IN LINE [n]

You have a variable that is outside the computer's range. It usually happens when you're trying to POKE a value less than 0 or above 255. So don't.

### LOAD ERROR IN LINE [n]

Something is wrong with an attempted LOAD from cassette - typically the file you're trying to LOAD has been scrambled somehow. Tapes can become damaged by leaving them near magnets etc. There's not much you can do about this, except try again and put it down to experience. Next time make sure you have a backup.

### NEXT WITHOUT FOR ERROR IN LINE [n]

The computer has found a NEXT statement in your program that is not associated with a preceding FOR. You might have missed out the FOR altogether, or a NEXT somewhere else in the program might have been tied to your FOR. This can happen if you aren't specific about which FOR variable you want executed NEXT. Check that your FORs and NEXTs pair off.

### NOT INPUT FILE

This message occurs when a file has been OPENed for output only and you're now



## Error Messages and What they Mean (Continued.....)

trying to read from it. Check your READ# command, but the fault is more likely to be in an OPEN statement.

### NOT OUTPUT FILE

This message occurs when a file has been OPENed for input only and you're now trying to write to it. Check your READ# command, but the fault is more likely to be in an OPEN statement

### OUT OF DATA ERROR IN LINE [n]

The computer has run out of DATA items to READ. There must be enough entries in your DATA lines to fill all the variables in READ statements. The simplest solution is to start counting and make sure there is sufficient DATA.

You might also get the problem if you want to read the same DATA more than once, to repeat it in different POKE locations or different arrays, say. Then you need a RESTORE before attempting each READ.

### OUT OF MEMORY ERROR

You may have run out of memory because your program is too big and/or it's creating too many new values for variables. Buy more memory, simplify the program, or stop it producing so many new values for the computer to store.

You might also get this error, even when PRINT FRE(0) shows you have a lot of memory left. In this case what's probably happening is that the stack is filling up with too many nested GOSUBS or FOR... NEXT loops. The stack is an "aide memoire" for the computer that indicates where in the program it has to jump to and when. The solution is to simplify the program.

This can also occur when loading a program from tape. If the tape header is corrupt then it can overwrite part of the Operating System area and cause a spurious error message. Always turn off the computer before attempting a re-load if this occurs.

### OVERFLOW ERROR IN LINE [n]

You have a calculation that's produced a number too big for the computer (the largest number the 64 can handle is  $1.70141884 \times 10^{38}$ , or  $1.70141884E = 38$  as it's sometimes written. Either way it's the number multiplied by 10 followed by 38 zeros. You will have to alter the program to avoid this, perhaps by changing the order in which your calculations are done. Do you really need numbers that big?

### REDIM'D ARRAY ERROR IN LINE [n]

The same array name has been used in more than one DIM statement, or you are trying to DIM an array name to which you've already allocated a particular number of elements. This is likely to be the result of carelessness, for instance, a DIM statement within a FOR ... NEXT loop. It helps to keep all your DIM statements at the start of the program, that way they are much easier to check.

### REDO FROM START

This sounds awful but actually isn't. It just means that the wrong kind of response has been given to an INPUT prompt. The program was expecting numeric and someone typed alphabetic, or vice versa. The message will continue to appear until the computer gets the right input.

### RETURN WITHOUT GOSUB

The computer has found a RETURN that isn't linked to a preceding GOSUB, perhaps because you missed out the GOSUB or inadvertently added a RETURN (in which case you can add or delete as appropriate). The most common cause is because the sequence of execution caused the program to fall into a subroutine. In this case, correct the program flow. A STOP inserted before the subroutine might help to find out what is happening.

An END statement should prevent the program running on into the subroutine or a GOTO could skip past it.



## Error Messages and What they Mean (Continued....)

### STRING TOO LONG ERROR IN LINE [n]

You have too many characters in a string. The maximum allowed is 255.

This may have happened because you tried to add two strings together. If there's any danger of a concatenation producing an over-long string, it's worth inserting a test for length via the LEN\$ function.

### SYNTAX ERROR

This is by far the most common error message. You have used an illegal term or construction.

The probable cause is mistyping and common culprits are bad spelling, accidentally hitting one character twice while typing, and too many or too few brackets. Check your program lines.

### TYPE MISMATCH ERROR IN LINE [n]

Your program has tried to put the wrong type of value into a variable, i.e. string characters into a numeric variable or vice versa. Change the erring command.

### UNDEF'D FUNCTION ERROR IN LINE [n]

The program is trying to use a function that

you haven't defined by a DEF FN statement. Define your function, preferably at the start of your program.

Sometimes this error happens because you weren't actually attempting to reference a user-defined function, you've just mis-typed something that the computer has detected as a function.

### UNDEF'D STATEMENT ERROR IN LINE [n]

You tried to RUN or GOTO or GOSUB a line number that doesn't exist. The target line has been omitted or you got the number wrong.

### VERIFY ERROR

The program you're verifying doesn't match what's in memory. There are many possible reasons for this. The best option is to SAVE it again and have another go at VERIFYing.

If you are still getting a VERIFY ERROR on cassette, move the tape unit (it might be too near a magnetic field like that generated by the TV set) and/or try a different cassette.



## Commodore Network

Commodore Network is a dedicated C64 magazine published in Australia. You can now pick up your copy at club meetings. Cost \$3.50 each. There is no need to order.

## From the Club Shop (Alias Pedlar)

Blank Disks 5 1/4" - \$6 for 10  
3 1/2" - \$9 for 10

Please help by bringing the right money if possible



# Profile

The profile segment has been introduced, to firstly introduce general club members to their committee, and later on to let you get to know other club members and their interests. Over the course of the next few months you may be asked to complete a Profile Form. No information will be included that you do not wish and there will be no pressure to complete one if you prefer not to.

**Name:** DOROTHY IRENE MILLARD

**Computer(s) Owned:**

\* Two C64's (but one isn't working because I pinched the power supply and other bits to get the other one working!)

\* Spectrum (not that it's actually been used as I don't have a cassette for it and the only software I have is on cassette!). It came with a funny little micro drive but the games on it are woeful and remind me of the very small type in games out of magazines in the early days.

\* Amiga 500 upgraded with extra memory (how else can you run Desktop Publishing software and digitize music?)

**Other Computer Equipment Owned:**

\* Panasonic 9 pin dot matrix printer KX-P1180.

\* Modem (actually that is really Adrian's but never mind it sits on top of the computer!)

\* Roctec Hard-Disk Drive for the Amiga

**What do you use your computer(s) for?**

\* The C64 is used for programming and playing adventure games (my passion) and word processing when the Amiga isn't available (which is most of the time!) All my solutions for the Help Line are on the C64 and are printed out as necessary. Until recently my programming was done using The Quill but for the last three I have been writing in BASIC, which is more flexible, then compiling the program (which is another story!)

\* The Amiga is used for Desktop Publishing, in particular the newsletter, but I also enjoy preparing fliers and signs for square dancing and the local school.

*Sometimes I even get to play the occasional adventure.*

**How long have you been interested in computers?**

*Approximately 8 years. I started out with the old style C64 which served my family for many years before we bought the Amiga. I'm not sure why we've got the Spectrum!*

**How long have you been a member of MCCC?**

*I visited MCCC for approximately six months before joining and becoming newsletter editor approximately three and a half years ago. I enjoy preparing the newsletter each month, especially when lots of articles come in. Hint, Hint!*

**Family:**

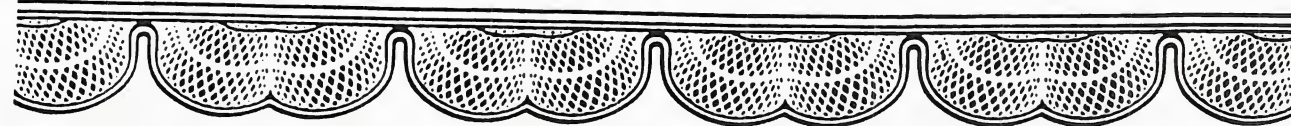
*My husband, John, uses the Amiga to digitize music and keeps track of his record collection on a database. I have three children, Rowan who is 19 is more interested in cars than computers, which is probably just as well, as we can't all use the computer at the same time. Adrian, nearly 18, uses the Amiga for BBSing, Games, Homework etc. My daughter, Rachael nearly 12, likes to play games.*

**Other Hobbies:**

*My other hobbies include Square Dancing - I recently attended a convention in Shepparton attended by 800, stamp collecting, correspondence and writing articles for magazines, usually adventure related.*

**Any other relevant information:**

*I enjoy the friendliness of attending club meetings (including committee meetings). Long may they continue!*





# ***Computers and Telecommunications***

## ***A look into the world of Modems***

***by Brett Edward Eden***

### ***There are many wonderful pieces of computer hardware***

In today's fast moving technological society, there are many wonderful pieces of computer hardware that people know surprisingly little about, and modems clearly fall into that category.

Sure, you've heard of a modem before (MODEM is an abbreviation for Modulator-Demodulator), but what exactly can they do? In real terms, modems are capable of many interesting and remarkably convenient functions. But before I go into that, I'll give you a brief history on modems.

### ***Modems first appeared in the early eighties and were very slow***

The modem first appeared in the world of computers in the early eighties, when Dick Smith introduced the System-80 300 Baud XR Modem. These are VERY slow compared to today's standards, yet many people were running bulletin boards with them (A frightening thought in itself!!!).

Anyhow, modems gradually became more and more popular as programmers began to write software that supported them, as well as hardware manufacturers, who

put much research into them, eventually manufacturing faster modems with speeds like 1200, 2400 and 9600 BPS (BPS stands for bytes per second).

### ***Most modern modems are capable of many functions***

Now for some interesting technical bits for you techno number-cruncher type people to consume!

Most modems these days are capable of many functions.

The first which I will mention is the most important, and that is data transfer through the telephone lines. This essentially enables one modem to talk to another in a similar way as we might with friends or relatives on the telephone, except instead of using voices, it uses a series of high pitched tones and beep which are basically chunks of data broken down into a transferable format.

It's in this way that the data receives and sends text or program data to the remote machine. Once this data is received at either end, it is translated in to either of the following:

(a) Data which can be consumed and understood by the computer.

(b) ANSI characters, which are basically a form of text with a whole bunch of graphical characters thrown in for good measure (They're a bit like the graphics

characters that are found on the keys of a C64 or C128). With these characters you can design screens or menus suitable for a bulletin board system.

### ***Some modems are capable of sending/receiving faxes***

Some modems are designed in such a way that they are capable of sending/receiving faxes. This is slightly more primitive than the fully capable fax machine, and essentially involves the computer translating the telephone signals into a graphic which is then dumped to the printer.

### ***Fast modems are needed to run bulletin boards***

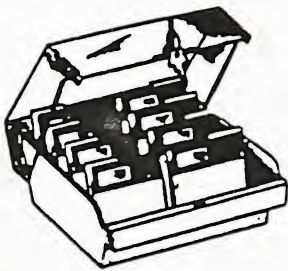
Modems are, as I mentioned above, useful for running a bulletin board, but usually it helps to have fast modem for this, as users will find it easier to transfer file/receive menu text if you have a fast modem. However, you must also have a fast modem if you intend to benefit from this.

A package called MAXS BBS enables Amiga users to create and run their own bulletin board systems.

I hope this article has given you some insight into the world of modems.

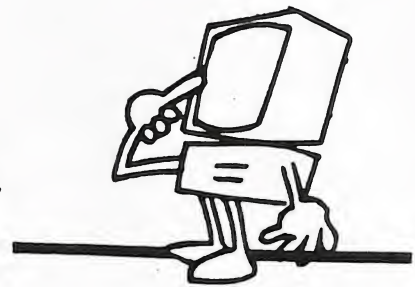
*Brett*





# Virus Alert

by Micheal Allen



A virus is not a living organism, it's a computer program. If a system has been "infected", the virus program is present somewhere in memory.

There are two goals for a virus program. The first is to copy itself to as many different systems as possible, and the second is to perform some sort of sabotage when it gets there. If a virus is present in memory, it will attempt to copy itself to every disk that is inserted into the computer's floppy disk drive. It can do this in several ways, such as writing to the bootblock of the disk or attaching itself to a file (a link virus).

What a virus does when it is present in your system depends on which strain it is. Some virus programs are merely irritating, and will display silly messages or turn your pointer into a rude shape. Others are more destructive, and will destroy all the data stored on the disk inserted, overwriting it with garbage. Both floppy and hard drives are susceptible to damage in this way.

---

## *What are the symptoms?*

---

The symptoms of viruses are as follows:

Inexplicable crashes from once reliable programs, strange messages (usually profane) or graphics, loss or corruption of files and commercial games will no longer boot.

---

## *What to do if I have one?*

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The first thing to do is get rid of it! There are many programs in the Public Domain that will search and destroy virus programs. This anti-virus software will search through memory and remove any resident virus. If you insert your disk it will then examine it for damage and other copies of the virus program. Hard drives should also be

checked, as a virus could lurk away for weeks in an obscure drawer of a large hard drive. When the anti-virus software finds something suspicious, it will ask you if you wish to re-write the bootblock or boot sectors. Be careful! If the disk in question is a normal Amiga DOS disk, is a commercial game or a demo, read the next bit first.

Most games and many demos put their own special programs in the bootblock of a disk, in order to prevent piracy or provide a pretty screen as soon as the disk is inserted. The anti-virus software has no way of knowing if the bootblock contains a virus or such a program.

If a game or demo boots normally, it is reasonably safe to assume that it is viral free. To make absolutely sure you may want to use a special program to make a copy of the bootblock and save it as a file. You can then safely overwrite the existing data, and if the game/demo fails to boot you need only to copy the back-up data back to the disk. If the program does boot you can assume the bootblock you copied contained a virus.

If a commercial game has been destroyed, get in touch with the publisher. They usually offer a replacement service for a small fee. so, now you know all there is to know about viruses, check out how to prevent them and you should be safe from harm.

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## *What can I do to prevent a virus?*

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### **1. Make back-ups.**

Back up important data regularly. If disaster strikes, you may be able to resurrect at least some of your work.

### **2. Always write protect floppy disks.**

A virus cannot be written to a disk which has



## Virus Alert by Micheal Allen (Continued.....)

its write protect tab set. Always protect commercial games and demos before use.

### 3. Switch off.

Switch your computer off before games. A soft-reset will not clear the memory totally, and a resident virus may survive.

### 4. Use a hardware protector.

You can buy small gadgets which will inform you if the boot sectors of a drive are being written to. Some floppy drives also have the feature built in.

### 5. Use anti-virus software.

Get hold of the latest anti-virus software and use it. Every time you load workbench, start the virus software. On workbench 2 & 3 machines this can be done by copying the software into the draw called "WB-Startup". Workbench 1.3 machines will require an addition to the startup sequence in the s: directory.

### 6. Don't use pirated software.

As pirated software comes from dubious

sources, you will have no idea who has used it before you. It is possible that a virus has been attached, either intentionally or by accident. Always check archived files as well - a virus can be squashed like any other program.

### 7. Be careful using PD software.


Before you use any PD software run your anti-virus program. This is especially true when files have been downloaded from a BBS.

### Footnote:

VirusChecker and VirusZ are two reliable and good virus detection programs and are available through any good PD library or BBS.

The above article was taken from CU Amiga January 1994 issue, and reprinted from Output with thanks.

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### C LUB MEETING DATES FOR 1994/95

12th January, 1994.	9th February, 1994.	9th March, 1994.
13th April, 1994.	11th May, 1994.	8th June, 1994.
13th July, 1994.	10th August, 1994.	14th September, 1994.
12th October, 1994.	9th November, 1994.	14th December, 1994.
11th January, 1995	8th February, 1995.	8th March, 1995.

**Please Note:**

*All club meetings are on the second Wednesday of each month in the Courtyard Room, Nunawading Civic Centre, Whitehorse Road, Nunawading. The meeting room is available between 7-11 p.m.*